

What is claimed is:

1. A video display system comprised of:

a video processor having at least a first computer video input port and a second, NTSC video input port and a video signal output port, capable of being operatively coupled to a fixed-pixel array video display device; and

a memory storage device, operatively coupled to the video processor and storing program instructions which, when executed cause the video processor to format video input signals at both ports, into a single VESA compliant video signal that is sent to a fixed pixel video display device where upon video input signals are scaled to fit to video window areas within the fixed pixel array display device .

2. The video display system of claim 1 wherein said video processor includes:

a control input that is capable of being coupled to a fixed pixel array display device that provides a signal to the video processor that indicates where a tactile contact with the display device was made; and

where said memory includes additional instructions which when executed cause said processor to read a signal at said control input and correlate the location of a contact with said fixed-pixel array display device with an image being projected on said device.

3. The video display system of claim 1 wherein said video processor further includes:

a control input that is capable of being coupled to a fixed pixel array display device;

and wherein said video display system is further comprised of:

a display device having an optical sensor operatively coupled to the control input and which generates a signal for the video processor that indicates where a contact or near contact with the display device surface was made; and

where said memory includes additional instructions which when executed cause said video processor to read a signal at said control input and correlate the location of a contact or near contact with said fixed-pixel array display device surface with an image being projected on said device.

4. The video display system of claim 1 wherein the memory storage device stores program instructions which when executed cause the video processor to display a video image from a video source in a corresponding window on the display device.

5. The video display system of claim 1 wherein the memory storage device stores program instructions, which when executed cause the video processor to alter a video image from a video source by adding or deleting vertical pixels and adding or deleting horizontal pixels.

6. A video display system comprised of:

a VESA-compliant, fixed-pixel array display device said display device capable of displaying multiple video images in separate display areas of the display device, each video image displayed on the display device being generated from a corresponding video signal from a corresponding video source;

a video processor, the video processor having a first video input port that is capable of receiving a first format video signal and, a second video input port that is capable of receiving a second format video signal, at least one of said first and second video signal formats capable of being a non-VESA compliant format, said video processor having a VESA-compliant video signal output port operatively coupled to the video display device from which a VESA-compliant video output signal is output; and

memory, operatively coupled to the video processor and storing program instructions which, when executed cause the video processor to process at least one of: the first video signal and the second video signal received at the second video input, into a single format, such that a video image produced on the display device by the first video signal and a video image produced on the display device by the second video signal, are of substantially the same size on, and in different sections of, the display device.

7. The video display system of claim 6 wherein said fixed-pixel array display device includes:

a touch-sensitive membrane by which tactile contact with the fixed-pixel array display device is detected and which generates a touch-location signal that identifies where a contact with the touch-sensitive membrane was made; and

where said processor includes a control input port coupled to said fixed-pixel array display device and which receives the touch-location signal; and

where said memory includes additional instructions which when executed cause said processor to read a signal at said control input and correlate the location of a contact with said membrane with an image being projected on said device.

8. The video display system of claim 6 wherein said fixed-pixel array display device includes:

an optical sensor by which tactile contact with the fixed-pixel array display device surface can be detected and which generates a touch-location signal that identifies where a contact with the surface of the display device was made; and

where said processor includes a control input port coupled to said fixed-pixel array display device and which receives the touch-location signal; and

where said memory includes additional instructions which when executed cause said processor to read a signal at said control input and correlate the location of a contact with the surface of the display device with an image being projected on the display device.

9. The video display system of claim 8 wherein the processor has a second control output that is capable of being coupled to a computer generating video output that is to be displayed on said display device and wherein the memory stores additional instructions, which when executed, cause the processor to send a command to the computer generating video informing the computer that a tactile contact with the surface of the display device was equivalent to a mouse pointer selection for the computer.

10. The video display system of claim 6 wherein the memory stores program instructions which when executed cause the video processor to format video signals to alter the size of an image generated on a display device by at least one of the first and second video signals.

11. The video display system of claim 6 wherein the memory stores program instructions, which when executed cause the video processor to process at least one of the first video signal and the second video signal to alter at least one of: the vertical pixel count, and the

horizontal pixel count, of a video image generated on a display device by at least one of: the first video signal and the second video signal.

12. A video display system comprised of:

an input/output (I/O) device having a fixed-pixel array display device that is VESA compliant and capable of displaying one or more video images, each of the video images being generated by a corresponding video signal, each video image being displayed in its own area of the fixed-pixel array display device said I/O device also having an optical touch-sensor by which the location of a contact with the display device is determinable;

a processor having a first video input port that is capable of receiving a first video signal from a first video source, a second video input port that is capable of receiving a second video signal from a second video source, and a tactile sense input coupled to the input/output device and receiving signals from which the location of a tactile contact with the input/output device can be determined, said processor having a video signal output port operatively coupled to the fixed pixel array video display device; and

memory, operatively coupled to the processor and storing program instructions which, when executed cause the processor to process at least one of: the first video signal and the second video signal into a single VESA-compliant format, such that a video image produced on the fixed pixel array display device by the first video signal and a video image produced on the fixed pixel array display device by the second video signal, are in different sections of the display device, the program instructions further causing the processor to read signals indicative of a tactile contact with the display device and to display on the I/O device, an indication that the tactile contact was detected.

13. The video display system of claim 12 wherein the memory stores program instructions which when executed cause the processor to format the first and second video signals to alter the size of an image generated on a display device by at least one of the first and second video signals so that the displayed size of images produced by each signal is substantially the same.

14. The video display system of claim 12 wherein the memory stores program instructions, which when executed cause the processor to process at least one of the first video

signal and the second video signal, so as to alter at least one of: the vertical pixel count, and the horizontal pixel count, of a video image generated on a display device by at least one of: the first video signal and the second video signal.

15. A video display system comprised of:

a display device capable of displaying one or more video images, each generated by a corresponding video signal, each video image being displayed in its own area of the display device, said display device also having an optical tactile contact sensor by which the location of a tactile contact with the touch-sensitive input screen is determinable;

a Crestron video processor operatively coupled to the display device, the video processor capable of receiving a first video signal from a first non-VESA compliant source, a second video input port that is capable of receiving a second, VESA-compliant video signal from a second video source, and a tactile sense input coupled to the display device and receiving signals indicative of the location of a tactile contact with the display device, said processor having a video signal output port operatively coupled to the display device; and

memory, operatively coupled to the Crestron video processor and storing program instructions which, when executed cause the processor to process at least one of: the first video signal and the second video signal into a single VESA-compliant format, such that a video image produced on the display device by the first video signal and a video image produced on the display device by the second video signal, are of substantially the same size on, and in different sections of the display device, the program instructions further causing the processor to read signals indicative of tactile contact with the display device and to display on the display device, an indication of the tactile contact to electronically simulate the action of drawing on the screen with a marker or to manipulate the functions of the attached computers.

16. The video display system of claim 15 wherein the memory stores program instructions which when executed cause the Crestron video processor to format the first and second video signals to alter the size of an image generated on the display device by at least one of the first and second video signals so that the displayed size of images produced by each signal may be substantially the same or significantly different.

17. The video display system of claim 15 wherein the memory stores program instructions, which when executed cause the Crestron video processor to process at least one of the first video signal and the second video signal, so as to alter at least one of: the vertical pixel count, and the horizontal pixel count, of a video image generated on the display device by at least one of: the first video signal and the second video signal.

18. A method of displaying multiple video images on a single display device comprise of the steps of:

receiving a plurality of video signals at a video processor, each of the video signals being capable of being processed to generate an image on a display device such that a first one of the video signals will generate an image of a first size on a display device and a second one of the video signals will generate an image of a second size on a display device; and

processing at least one of the video signals after its receipt so that when the first and second video signals are processed, they each generate images of the same size on a display device.

19. The method of claim 18 wherein the step of processing at least one of the video signals includes the steps of: changing the number of pixels in at least one of the vertical and horizontal directions of at least one of the video signals so that images generated on a display device are substantially the same size.

20. The method of claim 18 wherein the step of processing at least one of the video signals includes the step of processing video signals in a Crestron video processor.